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Docket No.: 1602-0184PUS1

(PATENT)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Keiki TANABE et al.

Application No.: 10/807,236

Filed: March 24, 2004

For: ESTIMATING METHOD OF NOX

OCCULSION AMOUNT

Confirmation No.: 4507

Art Unit: 3748

Examiner: T. M. NGUYEN

## **LETTER**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

This is to correct minor typographical errors in the first paragraph on page 3 of the Request for Reconsideration filed December 26, 2006.

That paragraph should be amended as follows:

Regarding claim 6, although the Examiner points out an equation (4b), it is an equation (4b) for calculating an  $NO_x$  occlusion rate  $X_a \times_{\dot{a}}$  of  $NO_x$  and has no relationship to claim 6 in this application which is concerned with calculating an  $NO_x$  discharging amount. In addition, because equation (4a) discloses an equation calculating the desorption rate  $X_d \times_{\dot{a}}$  of  $NO_x$ , equation (4a) is closer to the art than equation (4b). In this point, equation (4a) is  $x_a \times_{\dot{a}} = C_1 X_{NOx}$ , and  $X_{NOx}$  represents the amount of stored  $NO_x$ . Therefore, equation (4a) indicates only that the desorption rate of  $NO_x$  is proportional to the amount of stored  $NO_x$  occluded  $NO_x$  trap catalyst. In contrast, the invention of present claim 6 calculates an  $NO_x$  discharging amount from catalyst inlet reducing agent concentration, reducing agent utilization rate, oxygen concentration in catalyst inlet, and exhaust gas flow rate. This innovative calculation is neither taught nor suggested by the Sun reference.

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Application No. 10/807,236

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The paragraph as amended reads:

Regarding claim 6, although the Examiner points out an equation (4b), it is an equation (4b) for calculating an  $NO_x$  occlusion rate  $x_a$  of  $NO_x$  and has no relationship to claim 6 in this application which is concerned with calculating an  $NO_x$  discharging amount. In addition, because equation (4a) discloses an equation calculating the desorption rate  $x_d$  of  $NO_x$ , equation (4a) is closer to the art than equation (4b). In this point, equation (4a) is  $x_d = C_1 X_{NOx}$ , and  $X_{NOx}$  represents the amount of stored  $NO_x$ . Therefore, equation (4a) indicates only that the desorption rate of  $NO_x$  is proportional to the amount of stored  $NO_x$  occluded  $NO_x$  trap catalyst. In contrast, the invention of present claim 6 calculates an  $NO_x$  discharging amount from catalyst inlet reducing agent concentration, reducing agent utilization rate, oxygen concentration in catalyst inlet, and exhaust gas flow rate. This innovative calculation is neither taught nor suggested by the Sun reference.

If there are any questions, the PTO is invited to contact Richard Gallagher (Registration No. 28,781) at (703) 205-8008.

Dated: March 29, 2007

Respectfully submitted,

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